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EXAMINER	
HOLLIDAY, JAIME MICHELE	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/517,538	DUPUY ET AL.	
	Examiner	Art Unit	
	JAIME M. HOLLIDAY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-11,13 and 15-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6-11, 13 and 15-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see REMARKS, filed May 4, 2010, with respect to the rejection(s) of claim(s) 1-4, 6-11, 13 and 15-24 as being unpatentable over Yamamoto et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yamamoto et al.

2. Applicant's arguments filed May 4, 2010 have been fully considered but they are not persuasive.

Applicants also argue that the combination of the Vilppula and Roel-Ng references is illogical since Vilppula et al. disclose a single locator device that can have multiple positioning mechanisms, while Roel-Ng et al. disclose a base station controller that needs to acquire positions of the cellular phones.

Examiner respectfully disagrees, because the Roel-Ng reference teaches that the description of the MPC (which is a single entity) utilizes network based and MS-based positioning methods. The PMSD of the Vilppula reference uses network based positioning (triangulation; TDOA; external GPS) and a MS-based positioning (internal GPS of the terminal device). Therefore, the modification of the system of PMSD to activate an idle positioning method is logical, in order to determine the position of the terminal device.

Therefore, in view of the preceding arguments, Examiner maintains the previous rejection as applied to the Vilppula and Roel-Ng references.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-4 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (US 2002/0019698 A1)** in view of **Yamamoto et al. (US 2003/0109265 A1)**, and in further view of **Roel-Ng et al. (US 6,002,936)**.

Consider **claim 1**, Vilppula et al. clearly show and disclose method for generating position information in a mobile equipment provided with at least two position determination devices (a method for position determination in which one or more application (**201**, **202**) requests a positioning method selection device (**204**) {*mobile equipment*} for positioning data, which provides an application with positioning data using one or more **positioning methods** (**205** to **209**) {***position determination device***} [abstract and figure 2]), the method comprising the following steps: sharing access,

between multiple applications, to the at least two position determination devices using a common interface (PMSD receives requests for positioning data from applications running in the mobile terminal, for example a navigation system and/or a Web browser [paragraph 79]), allocating to each position determination device at least one stored parameter value (maintaining a centralized register on at least one positioning property of said one or more positioning method [paragraph 15]), detecting insertion of a new position determination device (registration takes place when an external GPS is connected to the terminal via a serial port [paragraph 71]), in response to detecting insertion, collecting at least one parameter for the new position determination device, and adding the new position determination device to a list of position determination devices (PMSD creates a default value for the parameter which describes the quality of the positioning data provided by the positioning method, and stores it in the register; increasing by one the value of the variable maxMethod, which indicates the total number of available positioning methods [paragraphs 12, 71]), determining a context information, including whether a user is in transit, on foot, or indoors (when the terminal device is used in a car, the user connects the terminal device to the car's GPS system [paragraphs 11, 12]), in response to a change in the context information, order the list of position determination devices based on the value of said at least one parameter for each position determination device (on arrival at his/her destination by car, the user takes the terminal with him/her, whereupon the external GPS system is no longer available for use by the PMSD, and the PMSD searches for the most suitable method from the available positioning methods, or that defined in advance by the user, for

example the internal GPS device of the terminal; automatically determining the best possible positioning method available for use by the terminal's applications, based on requirements specifying the quality of service (Quality of Positioning, QoP) defined by the user or the application [paragraphs 7, 11, 12]), in response to one of the multiple applications requesting position information using the common interface, selecting a position determination device according to the ordered list of position determination device (selecting a positioning method for use that fulfils at least one specified condition for selecting a positioning method [paragraph 18]).

However, Vilppula et al. fail explicitly disclose that the order is based on selecting a context-corresponding position determination device selection process.

In the same field of endeavor, Yamamoto et al. clearly show and disclose in response to a change in the context information, selecting a context-corresponding position determination device selection process from at least two context-corresponding position determination device selection processes (mobile unit requesting the measurement transmits the measuring request to positional information service server; measuring request includes the measuring quality conditions [fig. 24, paragraphs 107-109, 169]), using the context corresponding position determination device selection process to order the list of position determination devices (positional information service server excludes the measuring systems corresponding to not operating measuring centers from all of the measuring systems able to execute the measurement; positional information service server determines the priority order using the measuring systems in accordance with the measuring quality conditions received from the terminal requesting

the measurement for the remaining measuring systems; positional information service server transmits a measuring response including this measuring system back to the terminal requesting the measuring [paragraphs 169-171, 176-177]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to prioritize measuring systems based on the quality conditions from a request as taught by Yamamoto et al. in the method Vilppula et al., in order to determine the position of a terminal device according to QOS parameters.

However, Vilppula et al., as modified by Yamamoto et al., fail to specifically disclose that activating said selected position determination device.

In the same field of endeavor, Roel-Ng et al. clearly show and disclose activating said selected position determination device (once a positioning method has been chosen, the positioning request, along with the positioning method, is sent to the serving MSC/VLR **350**, which then forwards the positioning requests to a serving Base Station Controller (BSC) **340**; if the MS is idle mode, the serving MSC/VLR must page the MS and setup a call prior to forwarding the request to the BSC [abstract, fig. 3, col. 4 lines 41-49, col. 5 lines 38-46]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to page or setup a call to the mobile station in order to activate the terminal-based positioning method as taught by Roel-Ng et al. in the method Vilppula et al., as modified by Yamamoto et al., in order to successfully determine the position of a terminal device.

Consider **claim 2**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**, where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, reading on the claimed "at least two stored parameter values are allocated to each position determination device," (paragraph 48).

Consider **claim 3**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., clearly shows and discloses the claimed invention **as applied to claim 2 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 4**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., clearly shows and discloses the claimed invention **as applied to claim 3 above**, and in addition, Vilppula et al. further disclose checking for an active position determination device; selecting, if an active position determination device is found, the active position determination device independent of the ordered list (it possible for any application to over-ride or disable the operation of the PMSD and to use any of the available positioning methods [paragraph 56]), and selecting, if no, active

position determination device is found, a position determination device, according to the ordered list of position determination devices (PMSD can monitor the number of available positioning methods and the operating state of each positioning method, if a certain positioning method is not available at a particular moment, the next positioning method is selected for use [paragraph 61]).

Consider **claim 24**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., clearly shows and discloses the claimed invention **as applied to claim 3 above**, and in addition, Vilppula et al. further disclose determining whether a user is indoors by detecting the availability of a wireless communication device (when the user enters a building, the terminal's internal GPS receiver may enter a environment where it is not able to receive the necessary satellite signals, in which case its operation is prevented [paragraph 12]).

6. **Claims 6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Vilppula et al. (US 2002/0019698 A1)** and **Yamamoto et al. (US 2003/0109265 A1)**, in view of **Roel-Ng et al. (US 6,002,936)**, and in further view of **Ludwig (US 6,256,498 B1)**.

Consider **claim 6**, and **as applied to claim 1 above**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., clearly shows and discloses the claimed invention except that position data include physical position data and logic position data.

In the same field of endeavor, Ludwig clearly shows and discloses that actual estimation of the geometrical location necessary to provide location dependent WWW services is carried out within the WWW server. The mapping table **18** comprises a correspondence between *cell IDs or base station identity codes BSCI* (***logic position data***) and exact *geographical positions in terms of latitude and longitude* (***physical position data***) of respective cells and base station sub-systems. Therefore, once the cell IDs or base station identity codes BSCI are available within the WWW server, the geometrical location of the mobile station MS is calculated, reading on the claimed "position data include physical position data and logic position data," (abstract, col. 8 lines 7-15, lines 42-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to correspond cell IDs and geographical positions as taught by Ludwig in the method of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., in order to obtain location-related information.

Consider **claim 7**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al. and Ludwig, clearly shows and discloses the claimed invention **as applied to claim 6 above**, and in addition, Vilppula et al. further disclose that the conditions set by the user relating to selection of a positioning method can also comprise the desired accuracy of the requested positioning data (e.g. longitudes, latitudes, distance from a given point), reading on the claimed "physical position data include Cartesian coordinates and longitude/latitude," (paragraph 9).

Consider **claim 8**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al. and Ludwig, clearly shows and discloses the claimed invention **as applied to claim 6 above**, and in addition, Ludwig further discloses that a WWW application running on the mobile device MD includes all cell IDs or base station identity codes into an appropriate request written in hypertext transmission protocol HTTP, reading on the claimed "logic position data include radiofrequency beacon identifiers," (col. 8 lines 14-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use beacon identifiers to for location purposes as taught by Ludwig in the method of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., in order to obtain location-related information.

Consider **claim 9**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al. and Ludwig, clearly shows and discloses the claimed invention **as applied to claim 8 above**, and in addition, Ludwig further discloses that the mapping table **18** comprises a correspondence between *cell IDs or base station identity codes BSCI* (***logic position data***) and exact *geographical positions in terms of latitude and longitude* (***physical position data***) of respective cells and base station sub-systems. Therefore, once the cell IDs or base station identity codes BSCI are available within the WWW server, the geometrical location of the mobile station MS is calculated, reading on the claimed "conversion step comprises reading from a table physical coordinates corresponding to at least one beacon identifier," (col. 8 lines 42-60).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use beacon identifiers to calculate geometrical location as taught by Ludwig in the method of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., in order to obtain location-related information.

7. **Claims 10, 11, 13, 15-17, 22 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (US 2002/0019698 A1)** in view of **Yamamoto et al. (US 2003/0109265 A1)**.

Consider **claim 10**, Vilppula et al. clearly show and disclose mobile equipment having data processing capabilities (PMSD receives requests for positioning data from applications running in the mobile terminal, for example a navigation system and/or a Web browser [paragraph 79]), comprising: at least two position determination devices each capable of delivering position information of the mobile equipment in a specific format (positioning methods {*position determination devices*} are connected to the positioning method selection device (PMSD) through an interface **110** [paragraph 45]), at least two drivers for said position determination devices, each driver being capable of storing and retrieving at least two different parameters associated with the position determination device (parameter (or parameters) describing the quality of the positioning data provided by positioning method x is stored in register **115** {*driver*} and the value of the parameter (or parameters) describing the quality actually achieved by the positioning data provided by method x is stored in register **117** {*driver*} [paragraphs 48, 50, 62]), a location handling unit in communication with said drivers and capable of

communicating with an application for providing position information (control means **111** to **113** control the operation of the various functional blocks of the PMSD as well as data transmission between them [paragraph 46]), said location handling unit being capable of selecting a position determination device to be used for obtaining position information based on a context information (control means store commands required for the control of the PMSD functions; parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**; user can define parameters, which represent conditions on the basis of which a positioning method to be used is selected, through user interface **307** [paragraphs 46-48]), including whether a user is in transit, whether the user is on foot and whether the user is indoors (when the terminal device is used in a car, the user connects the terminal device to the car's GPS system; on arrival at his/her destination by car, the user takes the terminal with him/her, whereupon the external GPS system is no longer available for use by the PMSD, and the PMSD searches for the most suitable method from the available positioning methods, when the user enters a building, the terminal's internal GPS receiver is not able the receive the satellite signals [paragraphs 11, 12]), and on the values of said parameters stored in the drivers (automatically determining the best possible positioning method available for use by the terminal's applications, based on requirements specifying the quality of service (Quality of Positioning, QoP) defined by the user or the application; PMSD searches fro the positioning method defined in advanced by the user [paragraphs 7, 12]).

However, Vilppula et al. fail to explicitly disclose that the user is “on foot” when the user arrives to their destination by car and then enters a building.

It is obvious that a user would be able to walk, reading on the claimed “on foot,” if physically capable, from the car to the building.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to change the two of positioning methods/devices available based on the user’s position and movement, in order to accurately determine the position of a terminal device.

Further, Vilppula et al. fail to explicitly disclose that the priority parameters are established based on the received context message that includes context information.

In the same field of endeavor, Yamamoto et al. clearly show and disclose said location handling unit is adapted to receive a context message, that includes the context information, from said application and a priority of parameters is established as a function of said context message (mobile unit requesting the measurement transmits the measuring request to positional information service server; measuring request includes the measuring quality conditions; positional information service server excludes the measuring systems corresponding to not operating measuring centers from all of the measuring systems able to execute the measurement; positional information service server determines the priority order using the measuring systems in accordance with the measuring quality conditions received from the terminal requesting the measurement for the remaining measuring systems [fig. 15, paragraphs 108, 109, 176]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to prioritize measuring systems based on the quality conditions from a request as taught by Yamamoto et al. in the method Vilppula et al., in order to determine the position of a terminal device according to QOS parameters.

Consider **claim 11**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 10 above**, and in addition, Vilppula et al. further disclose position determination devices are selected from the group comprising cell-based positioning devices, satellite-based positioning devices and beacon-based positioning devices (internal GPS device of terminal [paragraph 12]).

Consider **claim 13**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 10 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 15**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 10 above**, and in addition, Vilppula et al. further disclose that the user can define conditions relating to the positioning methods, such as an order of preference and whether the user wishes a certain positioning method to be available for use or removed from use, directly to the PMSD, reading on the claimed "location handling unit comprises a ranking means

capable of storing a set of position determination devices with a preference order according to the parameter(s) of higher priority," (paragraph 33).

Consider **claim 16**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 15 above**, and in addition, Vilppula et al. further disclose that the PMSD knows the number of positioning methods available at any given time and their operating state at that time (e.g. in use/not in use) as well as their performance under the prevailing conditions. The highest priority positioning method in the order of preference defined by the user and/or application is examined. The PMSD can monitor the number of available positioning methods and the operating state of each positioning method, or each method can be used in turn and, if a certain positioning method is not available at a particular moment, the next positioning method is selected for use, reading on the claimed "location handling unit comprises an availability checking means for checking whether a preferred position determination device in said set is available or not and, in the negative, for checking the next preferred position determination device," (paragraphs 8, 61).

Consider **claim 17**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 10 above**, and in addition, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained positioning results can be selected for combination. A period of validity may also be defined for the

positioning data, such that stored positioning data is deleted once its period of validity expires, reading on the claimed “location handling unit is capable of providing to said application position data together with accuracy information relating to said data,” (paragraph 55).

Consider **claim 22**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 10 above**, and in addition, Vilppula et al. further disclose wherein the location handling unit is configured to respond to the activation of a location listener by operating in an asynchronous mode that provides the position information in response to the position information being refreshed (positioning requests and tasks may be received continuously in a sequence; if the application in question is intended to provide the user with an up-to-date estimate of his/her position as he/she moves from place to place [paragraph 52]), and wherein the location handling unit is configured to respond to the deactivation of the location listener by operating in a synchronous mode that provides the position information in response to an access request (positioning requests and parameter(s) relating to a given positioning task may be received by the PMSD in a "one-off" manner when a particular application requires positioning data [paragraph 52]).

Consider **claim 23**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention **as applied to claim 22 above**, and in addition, Vilppula et al. further disclose wherein the location handling unit sends a message to the at least two position determination devices, the message indicating the whether the mode is synchronous and whether the mod is asynchronous (positioning requests and

parameter(s) relating to a given positioning task may be received by the PMSD in a "one-off" manner when a particular application requires positioning data, or may be received continuously in a sequence [paragraph 52]).

8. **Claims 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (US 2002/0019698 A1)** in view of **Yamamoto et al. (US 2003/0109265 A1)**, and in further view of **Yabe et al. (US 2003/0013458 A1)**.

Consider **claim 18**, and **as applied to claim 10**, Vilppula et al., as modified by Yamamoto et al., clearly show and disclose the claimed invention except a position data conversion unit in communication with said location handling unit.

In the same field of endeavor, Yabe et al. clearly show and disclose data distribution management unit GWS3 extracts location-related information including the area name read out from location-related information database GWS4 and distributes the information to mobile station MS. A data format of location-related information to be stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data. Thus, in the case that the data format of location-related information is not in an HTML format, a conversion of the data format is performed by gateway server GWS, reading on the claimed “position data conversion unit in communication with said location handling unit,” (paragraphs 43, 50, 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the mobile

station as taught by Yabe et al. in the method Vilppula et al., as modified by Yamamoto et al., in order to obtain location-related information.

Consider **claim 19**, the combination of Vilppula et al. and Yamamoto et al., as modified by Yabe et al., clearly shows and discloses the claimed invention **as applied to claim 18 above**, and in addition, Yabe et al. further disclose that a data format of location-related information to be stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data, reading on the claimed "location handling unit is responsive to data format requirement information provided by the application for requesting conversion by said position data conversion unit," (paragraph 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format requested for the mobile station as taught by Yabe et al. in the method Vilppula et al., as modified by Yamamoto et al., in order to obtain location-related information.

Consider **claim 20**, the combination of Vilppula et al. and Yamamoto et al., as modified by Yabe et al., clearly shows and discloses the claimed invention **as applied to claim 19 above**, and in addition, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained positioning results can be selected for combination. A period of validity may also be defined for the positioning data, such that stored positioning data is

deleted once its period of validity expires, reading on the claimed "position history unit capable of storing a plurality of position data together with time/date information," (paragraph 55).

9. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Vilppula et al. (US 2002/0019698 A1)** and **Yamamoto et al. (US 2003/0109265 A1)**, in view of **Roel-Ng et al. (US 6,002,936)**, and in further view of **Yabe et al. (US 2003/0013458 A1)**.

Consider **claim 21**, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., disclose the claimed invention **as applied to claim 1 above**, and in addition, Vilppula et al. further disclose that the PMSD provides the positioning data to the application (or applications) in the correct format, i.e. in a format requested by the application, reading on the claimed "identifying a position data format as requested by an application, determining whether a currently active position determination device supplies data according to this format," (paragraphs 8, 31).

However, the combination of Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., fail to specifically teach converting the position data supplied by the currently active position determination device into the requested position data format.

In the same field of endeavor, Yabe et al. clearly show and disclose data distribution management unit GWS3 extracts location-related information including the area name read out from location-related information database GWS4 and distributes the information to mobile station MS. A data format of location-related information to be

stored in location-related information database GWS4 can take an arbitrary form, but data transmitted from gateway server GWS to mobile station MS must be HTML data. Thus, in the case that the data format of location-related information is not in an HTML format, a conversion of the data format is performed by gateway server GWS, reading on the claimed "converting the position data supplied by the currently active position determination device into the requested position data format," (paragraphs 43, 50, 51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the mobile station as taught by Yabe et al. in the method Vilppula et al. and Yamamoto et al., as modified by Roel-Ng et al., in order to obtain location-related information.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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